

Maximum safety for stationary  
and mobile applications

# HOKUYO UAM-05LP SAFETY LASER SCANNER

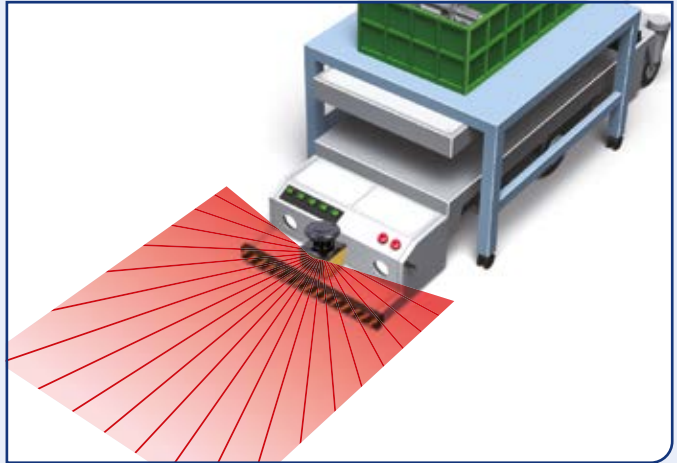
NEW



# APPLICATIONS

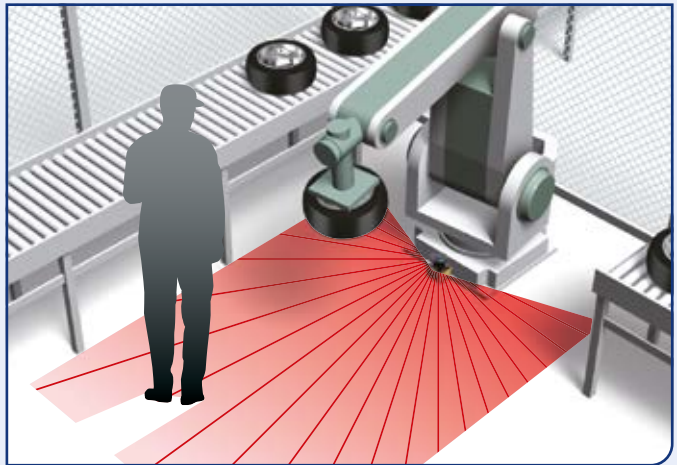
## COLLISION AVOIDANCE

- Switching between 32 safe zone sets enables collision avoidance for AGVs



## PRESENCE DETECTION

- Detection of persons or objects entering the safety zone



## ACCESS CONTROL

- Arm and hand protection for critical safety zones in the work area, for example during insertion or placement work



## UAM-05LP

### THE ADVANTAGES AT A GLANCE

- Compact design (95 mm x 80 mm x 80 mm)
- User-friendly installation with mounting bracket
- Mobile and stationary application
- High safety standard: SIL 2 / PL d / Cat. 3
- Simple and clear configuration program
- Protection class IP65
- Possibility of multi-scanner systems



# UAM-05LP SAFETY LASER SCANNER

With its high safety standards and flexible integrability, the UAM guarantees optimum personal protection in logistics, manufacturing and the process industry.

Simple installation and configuration software that clearly guides the operator through application-specific parameterisation round off the product.

## COMPACT AND USER FRIENDLY DESIGN

Simple installation on AGVs and for stationary safety monitoring systems.

### Dimensions

95 mm x 80 mm x 80 mm

### Weight

0.5 kg (T301)  
0.8 kg (T301C)

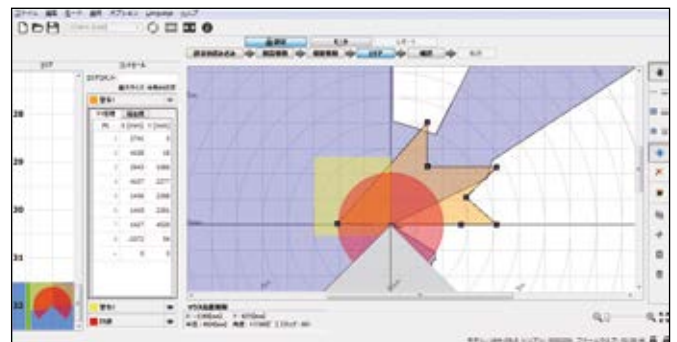
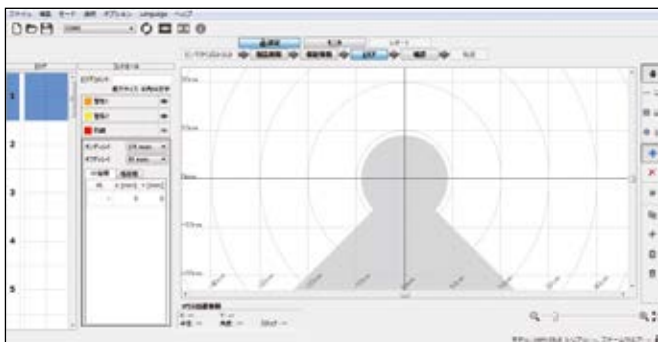


### Safety standards

EN IEC 61469-1/3	Type 3
IEC 61508	SIL2
EN ISO 13849-1	PL d, Cat. 3
UL 508	
UL 1998	
UL 61496-1	Type 3
CSA C22.2	No. 14

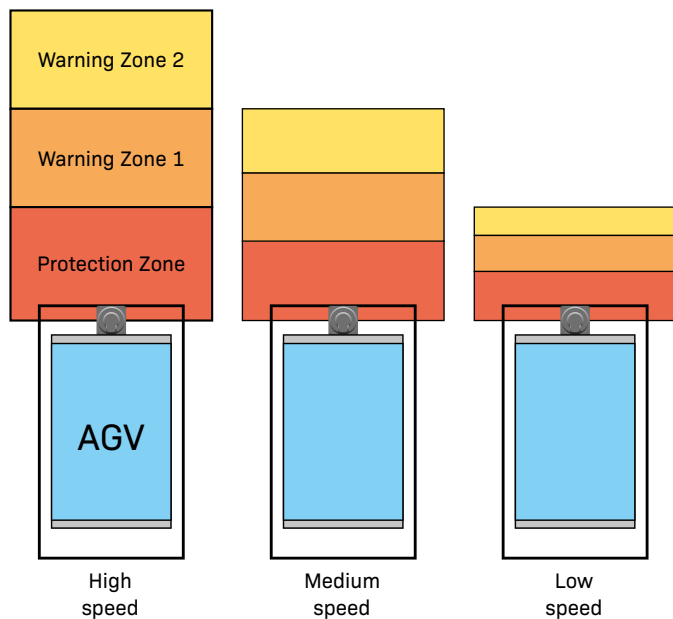
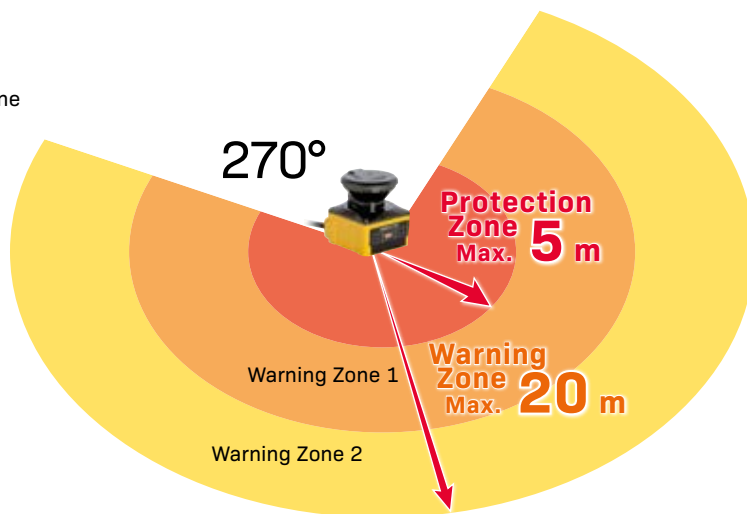
## EASY CONFIGURATION OF COMPLEX ZONES

A clear user interface allows even several complex zones to be configured graphically. The configuration software is included in the delivery.



## SAFETY WITH HIGH RANGE

Up to 5 meters of protection zone and 20 meters of warning zone configuration to suit various application requirements.

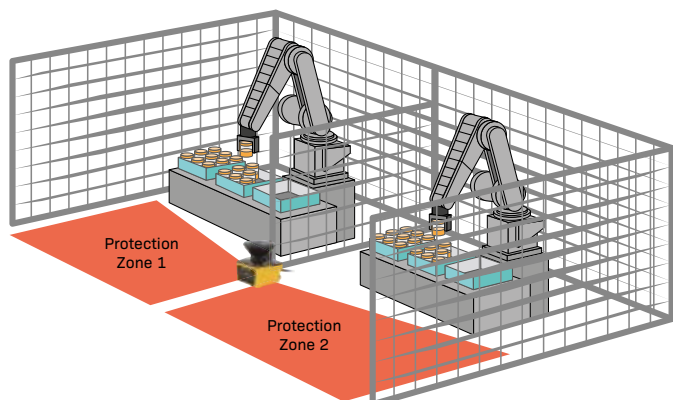
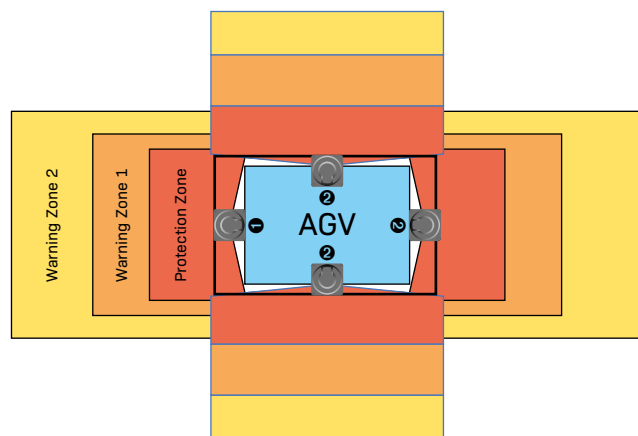


## ENCODER INPUT

On AGVs, zone sets are activated according to speed. Speed and direction of travel are constantly monitored by encoders to control safety zones and stop the AGV in case of danger.

## PRIMARY AND SECONDARY SYSTEM

Up to 4 units can be interconnected to form a control and follow-up system to monitor the danger zone. The primary unit ① can control the secondary units ② via inputs and outputs.



## TWO PARALLEL SAFETY ZONES

The laser scanner can monitor two hazardous areas simultaneously. Each of the two safety zones switches its own OSSD output.

# TECHNICAL DATA

## Ordering details

Product name	UAM-05LP-T301 / UAM-05LP-T301C
Ordering code	103039878 / 103039884

## General data

Standards	EN IEC 61496-3, EN IEC 61496-1
Response time	min. 60 ms

## General data - Features

Number of safe digital outputs	2
Wave length of the laser diode	905 nm
Range, protection zone	0.1 m ... 5 m
Range, non-safe warning zone	Max. 20 m
Number of zone sets of the warning and safety zones	max. 32

## Safety classification

Standards	IEC 61508
Performance level	up to d
Control category	3
Safety Integrity Level (SIL)	2
Safety type in accordance with EN IEC 61496-1	3

## Mechanical data

Opening Angle	270
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## Mechanical data – Connections

Length of cable	3 m / 0.3 m
Connector	Connecting cable, 22-core / Connecting cable with ODU connector, straight, 22-pole

## Mechanical data – Dimensions

Length	80 mm
Width	80 mm
Height	95 mm

## Ambient conditions

Protection class	IP65
Ambient temperature	-10 °C ... +50 °C
Storage and transport temperature	-25 °C ... +70 °C
Laser class	1

## Electrical data

Rated operating voltage	24 VDC
Electrical power consumption	6 W
Electrical power consumption, maximum	50 W





## SYSTEM COMPONENTS

### Laser scanner



Laser scanner with 3 m of connection cable, 22-core, including software

■ UAM-05LP-T301

Laser scanner with 0.3 m connection cable and ODU connector, straight, 22-pole, including software

■ UAM-05LP-T301C

### Extension cable for UAM-05LP-T301C



Cable length: 2 m

■ UAM-5C02C  
103039883

Cable length: 5 m

■ UAM-5C05C  
103039888

Cable length: 10 m

■ UAM-5C10C  
103039886

Cable length: 20 m

■ UAM-5C20C  
103039887

### Accessories



Sensor bracket for base mounting

■ UAM-BK03

103039882



Sensor bracket for rear mounting

■ UAM-BK04

103039881



Cover bracket to protect the optical window

■ UAM-BK05

103039880



Optical window (spare part)

■ UAM-05LP-OC

103039889

# THE SCHMERSAL GROUP

## PROTECTION FOR MAN AND MACHINE

In the demanding field of machine safety, the owner-managed Schmersal Group is one of the international market leaders. The company, which was founded in 1945, has a workforce of about 2,000 people and seven manufacturing sites on three continents along with its own companies and sales partners in more than 60 nations.

Customers of the Schmersal Group include “Global Players” in mechanical engineering and plant manufacturing and operators of machinery. They benefit from the company’s extensive expertise as a provider of systems and solutions for machine safety. In addition, Schmersal specialises in various areas including intralogistics, foodstuff production, the packaging industry, machine tool industry, lift switchgear, heavy industry and the automotive industry.

A major contribution to the systems and solutions offered by the Schmersal Group is made by tec.nicum with its comprehensive range of services: Certified Functional Safety Engineers advise machinery manufacturers and machinery operators in all aspects relating to machinery and occupational safety – and do so with product and manufacturer neutrality. Furthermore, they design and realise complex solutions for safety around the world in close collaboration with the clients.



### SAFETY PRODUCTS

- Safety switches and sensors, solenoid interlocks
- Safety controllers and safety relay modules, safety bus systems
- Optoelectronic and tactile safety devices
- Automation technology: position switches, proximity switches

### SAFETY SYSTEMS

- Complete solutions for safeguarding hazard areas
- Individual parametrisation and programming of safety controllers
- Tailor-made safety technology – be it for individual machines or a complex production line
- Industry-specific safety solutions

### SAFETY SERVICES

- tec.nicum academy – Seminars and training
- tec.nicum consulting – Consultancy services
- tec.nicum engineering – Design and technical planning
- tec.nicum integration – Execution and installation



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